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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,749	10/12/2001	Safwat E. Tadros	GEPL.P-068	8016

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EXAMINER	
BISSETT, MELANIE D	
ART UNIT	**PAPER NUMBER**
1711	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/682,749	TADROS ET AL.	
	Examiner	Art Unit	
	Melanie D. Bissett	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,7,9,11-18 and 20-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5, 7, 9, 11-18, and 20-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The rejections based on 35 USC 103 have been altered to reflect the amended claims.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 24 recites "the cycloaliphatic polyester" and refers to claim 23. However, claim 23 recites two separate cycloaliphatic polyesters. It is unclear whether the applicant intends to further limit the upper layer or the intermediate layer.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 5, 7, 9, 11-18, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacGregor et al. in view of Susi.

7. From a prior Office action:

> MacGregor discloses multi-layer plastic composites comprising a substrate, including polycarbonate, and at least one layer of cycloaliphatic polyester, where decorative layers can be located between the substrate and surface layer (abstract). The reference indicates that the cycloaliphatic polyester resin itself may be colored or modified to be the decorative layer (col. 1 lines 39-46). Polyester resins include those which match the applicant's claimed formula (col. 4

lines 27-45), where a polyester having cyclohexane structures as part of the R groups is preferred (col. 4 lines 46-59). MacGregor teaches the use of triazine UV absorbers and hindered amine light stabilizers (HALS), indicating a useful amount of UV absorber as 0.05-10% by weight (col. 6 lines 20-67). The substrate film and surface layers may be coextruded, or blow molded (col. 10 lines 40-58). However, MacGregor does not specifically teach a low-volatility, hydroxyphenyl-triazine UV absorber or teach the applicant's specified UV absorber and HALS structures. Also, MacGregor does not specifically suggest the use of a PCCD decorative layer as an intermediate layer.

Regarding the intermediate layer, the cycloaliphatic polyester materials of the invention are shown to have improved weatherability and solvent resistance. The reference teaches that intermediate layers may be incorporated as decorative layers and also that cycloaliphatic polyester materials may be colored or modified to act as a decorative layer. It is the examiner's position that it would have been prima facie obvious to apply more than one layer of the cycloaliphatic polyester composition to amplify the weatherability and solvent resistant properties of the film. The result would be a multi-layered structure having an intermediate and upper layer both comprising cycloaliphatic polyester.

Susi discloses a method of stabilizing polymer film coatings or molded articles against light by incorporating a mixture of a tris-aryl-s-triazine UV absorber and HALS compound into a polymer binder (abstract). The UV absorber has at least one hydroxyphenyl group. Polyester is noted as a binder polymer (col. 4 lines 48-57). Susi teaches the use of oligomer substituted piperidine HALS (col. 8 line 49-col. 9 line 35), HALS compounds fitting the applicant's claimed formula of claim 5 (col. 5 lines 20-51), and HALS compounds fitting the applicant's formula of claim 6 (col. 9 line 65-col. 11 line 24) in an amount of 0.01-5% by weight based on binder solids. The mixture of UV absorber and HALS compound provides improved gloss retention and weatherability compared to the use of individual additives (examples). Since MacGregor expressed interest in gloss retention and weatherability properties, it is the examiner's position that it would have been prima facie obvious to use an additive mixture by Susi's invention in the invention of MacGregor to further improve gloss retention and weatherability properties.

Regarding...limiting the intermediate layer to contain an additive, it is noted that MacGregor does not specifically teach incorporating an additive into an intermediate layer. However, the reference does teach colored and modified intermediate layers (col. 1 lines 38-46; col. 10 lines 40-54) and also suggests the use of additives in the substrate resin for coloration purposes (col. 10 lines 35-39). It is well known in the art to use dyes or pigments, including TiO_2, to color polymeric binders and form decorative layers. Therefore, it is the examiner's position that it would have been prima facie obvious to include dyes or pigments in the intermediate layer of MacGregor to provide a desired color or appearance in the decorative layer.

Regarding claim 9, Susi teaches a general tris-aryl-s-triazine formula (I), where certain species are preferred. Note that preferred compound (XIVB) is similar to the applicant's claimed formula, where Susi's compound has methyl substituents on two of the phenyl groups instead of one phenyl group. Susi's general formula (I) indicates that the substituents may be hydrogen atoms. It is the examiner's position that, given the similarity of the structures, the use of the

applicant's claimed UV absorber, which is encompassed by Susi's formula (I), would provide equivalent results to the preferred compound of formula (XIVB). Therefore, it is the examiner's position that it would have been prima facie obvious to use a compound fitting the applicant's formula in Susi's invention in the expectancy of providing equally improved gloss retention and weatherability properties.

Regarding the claimed gloss, change in gloss, and change in color properties, MacGregor teaches PCCD laminates having a gloss of 99.7 after irradiation, with a change in gloss of about 8%. However, the testing conditions may differ from those of the applicant's claimed properties. Also, MacGregor does not teach change in color in the applicant's claimed range. It is the examiner's position that the combination of MacGregor's laminate using Susi's UV stabilizer mixture would encompass the applicant's claimed specific UV additives and laminate structure. Susi teaches the combination of specific UV absorbers and HALS as especially beneficial for improving gloss and weathering properties. Since similar articles would have similar properties, it is the examiner's position that the combination of MacGregor's laminate using Susi's UV stabilizer mixture would possess the applicant's claimed gloss and weathering properties.

Response to Arguments

8. In response to the applicant's declaration, it is noted that the results shown are still not commensurate in scope with the claims. For example, only one UV stabilizer material has been used in all of the given working examples, which the examiner believes to be a combination of a triazine compound and a light stabilizer fitting one of the applicant's formulae. However, specific compounds are claimed for components (b) and (c) that are never exemplified. Examples of omitted compounds include pyrimidine compounds and light stabilizers fitting the other claimed formulae. The applicant cannot claim unexpected results for such compounds, where results have not been provided to support such a claim. It is also still the examiner's position that no unexpected results have been shown for polyesters besides PCCD, where all cycloaliphatic polyestsers are claimed. Furthermore, no thicknesses, amounts of materials, or process specifications are given to show that the results are in fact dependent on the variable in question. The

results are not representative of the closest prior art, which teaches PCCD compositions and not PCCD/PC blends. Regarding the applicant's arguments that the results contradict the argument that one would expect PCCD materials in a second layer to improve weatherability, it is the examiner's position that the results support the examiner's position. In fact, all examples showing blends or PC as the secondary layer have color change values worse than that of the laminate having a second PCCD layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melanie D. Bissett
Patent Examiner
Art Unit 1711

mdb